

WHAT IS CLAIMED IS:

1. An exercise apparatus, comprising:
 - a frame designed to rest upon a floor surface;
 - a crank rotatably mounted on the frame;
 - a seat; and
 - a seat supporting linkage assembly connected to the seat and movably interconnected between the crank and the frame in a manner that links rotation of the crank to movement of the seat through an elliptical path.
2. The exercise apparatus of claim 1, further comprising at least one foot support mounted on the frame in a manner that provides a foot receiving surface facing toward the seat.
3. The exercise apparatus of claim 1, further comprising at least one handlebar movably mounted on the frame, and having a hand grip portion disposed within reach of a person sitting on the seat.
4. The exercise apparatus of claim 3, wherein the handlebar is pivotally mounted on the frame and connected to the linkage assembly in a manner that links rotation of the crank to pivoting of the handlebar.
5. The exercise apparatus of claim 1, wherein the linkage assembly includes a rocker link pivotally mounted on the frame, and a seat supporting link movably interconnected between the rocker link and the crank.
6. An exercise apparatus, comprising:
 - a frame designed to rest upon a floor surface;
 - a crank rotatably mounted on the frame;

a seat; and

an interconnecting means for movably interconnecting the seat between the crank and the frame in a manner that links rotation of the crank to elliptical movement of the seat.

7. The exercise apparatus of claim 6, further comprising at least one foot support mounted on the frame in a manner that provides a foot receiving surface facing toward the seat.

8. The exercise apparatus of claim 6, further comprising at least one handlebar movably mounted on the frame, and having a hand grip portion disposed within reach of a person sitting on the seat.

9. The exercise apparatus of claim 8, wherein the handlebar is pivotally mounted on the frame and connected to the interconnecting means in a manner that links rotation of the crank to pivoting of the handlebar.

10. The exercise apparatus of claim 6, wherein the interconnecting means includes a rocker link pivotally mounted on the frame, and a seat supporting link movably interconnected between the rocker link and the crank.

11. An elliptical motion rowing machine, comprising:

a frame;

a linkage assembly movably mounted on the frame in such a manner that a portion of the linkage assembly moves through an elliptical path; and

a seat mounted on said portion.

12. The exercise apparatus of claim 11, further comprising at least one foot support mounted on the frame in a manner that provides a foot receiving surface facing toward the seat.

13. The exercise apparatus of claim 11, further comprising at least one handlebar movably mounted on the frame, and having a hand grip portion disposed within reach of a person sitting on the seat.

14. The exercise apparatus of claim 13, wherein the handlebar is pivotally mounted on the frame and connected to the linkage assembly in a manner that links rotation of the crank to pivoting of the handlebar.

15. The exercise apparatus of claim 11, wherein the linkage assembly includes a rocker link pivotally mounted on the frame, and a crank rotatably mounted on the frame, and the support is movably interconnected between the rocker link and the crank.

16. On an exercise rowing machine of a type having a seat movably mounted on a frame, the improvement comprising an elliptical motion linkage assembly interconnected between the seat and the frame.

17. An elliptical motion rowing machine, consisting essentially of:

a frame;

a crank rotatably mounted on the frame;

a rocker link pivotally mounted on the frame;

a connecting link movably interconnected between the rocker link and the crank in such a manner that a portion of the connecting link moves through an elliptical path;

a seat mounted on said portion; and

a foot platform mounted on the frame forward of the seat.

18. The elliptical motion rowing machine of claim 17, further comprising a handle movably connected to the frame.

19. The elliptical motion rowing machine of claim 18, wherein the handle is linked to the crank.

20. The elliptical motion rowing machine of claim 19, wherein the handle is part of a rigid bar that is pivotally mounted on the frame and connected to the connecting link.

21. The elliptical motion rowing machine of claim 17, wherein the foot platform is movably connected to the frame.

22. The elliptical motion rowing machine of claim 21, wherein the foot platform is movably connected to the crank.

23. The elliptical motion rowing machine of claim 17, further comprising a means for encouraging upward and forward movement of the seat.